MAIZE AND THE FALL ARMYWORM

Using Drones to Conquer Crop Threats in Papua New Guinea

A Journey To Recovery

MAIZE AND THE FALL ARMYWORM

50% crop loss and resorting to hand spraying options paint a bleak picture

In the 2019/2020 season, the Makham valley of Papua New Guinea (PNG) was plagued by the fall armyworm (FAW), seeing devastating losses of as much as 50% of maize crops.

Traditional spray equipment, using a tractor and boom spray trailer, was too small to get above the crop, leaving hand spraying as the only option.

Hand spraying is not safe or healthy for the workers, excessive chemicals are used, and it results in inconsistent application.

Smallholder farmers in Papua New Guinea need a large-scale, effective solution to rule out a repeat of the maize disaster of 2019/20.

DIMITRA X Rumion Limited

"Partnering with Dimitra will enable the first use of agricultural specific drones in fighting the FAW infestation in PNG. with the aim to reduce human exposure to chemicals and increase application efficiency. In addition, we are looking forward to working with Dimitra to set up best practices for our operations to allow us to take advantage of precision agriculture across not only our cropping, but also our cattle operations as well."

David Duran, General Manager, Rumion Limited

FARMERS IN PAPUA NEW GUINEA CAN USE THE POWER OF DRONES TO STOP THE FALL ARMYWORM IN ITS TRACKS

A Powerful Public, Private Partnership (PPP)

An important public, private partnership (PPP) has been formed between Rumion Limited, PHAMA Plus, Grow PN and Dimitra, with the support of the New Zealand and Australian governments. Together, they are working toward a community-based drone services model.

"The aim is for this engagement with precision agricultural technology to provide a lower cost of application, higher yield of crops, new technology job opportunities, and providing PNG's smallholder farmers much-needed access to new technologies," said John Simango, Executive Director, Grow PNG.

Dimitra + Drones to the Rescue

Each member in the public, private partnership has a role to play. This is Dimitra's:

Drone Pilot Services

Dimitra is offering drone pilot services, with pilots trained to fly the 30 L payload DJI T30 Ag Drones, then upload data outputs to a central repository to support agronomists and the farm management staff of Rumion.

Data Management & Visualization

Dimitra is working with a leading AgTech data integration management company, Pairtree.co that provides a visualization platform and dashboard that can be integrated into different Dimitra tools.

PAIRTREE
THINK ONE, POWERED BY MANY

STANDING TOGETHER TO ADVANCE SOLUTIONS

"Ultimately, the plan is to have all 2000+ smallholder farmers on the Dimitra Connected Farmer App, growing their crops with our app's assistance, funding decisions made easier by the amalgamated data never seen so easily before, and then — in terms of the drone spraying service — for this to be initiated by AI after assessing all data parameters and learning from the initial project."

Ben Wark, Director of Oceania & South East Asia, Dimitra

Dimitra's ever-expanding impact provides a vast array of support and purpose-built solutions for smallholder farmers worldwide.

The future of Maize in Papua New Guinea

Maize represents a vital source of nutrition for native Papua New Guineans. It is the go-to recommendation for governing bodies during any food shortages, such as those that occurred during the COVID-19 pandemic.

It is important that this vital crop be protected against pests.

Gaining a "view from the sky," and collecting significant, meaningful data around maize production is an essential task. Drones are one of the best, most effective tools to gain insights so farmers in PNG are equipped and empowered to make strategic, proactive decisions.

To learn more about the types of agriculture technology Dimitra is providing for farmers in Indonesia and around the world, visit

www.dimitra.io

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